

USSN: 09/932,523
Atty. Docket No.: 2001B078
Response dated November 21, 2003
Reply to Final OA of October 1, 2003

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-22 (Canceled)

Claim 23 (Currently Amended): A thermoplastic multi-layer film, comprising:

at least a core layer which comprises about 60 wt.% to about 95 wt.% of a first polylactic acid having a first D-lactic acid level from about 1 mole % to about 8 mole %, and about 5 wt.% to about 40 wt.% of a toughening additive selected from the group consisting of metallocene plastomers, styrene-ethylene-butene-styrene (SEBS) block copolymers, polyethylene succinate, ~~polybutylene succinate/adipate~~, polybutylene succinate/carbonate, polyurethane, and mixtures thereof.

Claim 24 (Previously Presented): The thermoplastic multi-layer film of claim 23, further comprising:

a first skin layer which comprises a second polylactic acid having a second D-lactic acid level of at least about 8 mole %, said first skin layer is on a first side of said core layer.

Claim 25 (Currently Amended): The thermoplastic multi-layer film of claim 24, wherein said toughening additive agent includes poly(epsilon-caprolactone).

Claim 26 (Previously Presented): The thermoplastic multi-layer film of claim 25, wherein said poly(epsilon-caprolactone) comprises from about 1 wt.% to about 10 wt.% of said core layer.

Claim 27 (Previously Presented): The thermoplastic multi-layer film of claim 24, wherein said first skin layer includes an anti-blocking agent.

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Claim 28 (Previously Presented): The thermoplastic multi-layer film of claim 23, wherein said core layer includes void-initiating particles.

Claim 29 (Previously Presented): The thermoplastic multi-layer film of claim 28, wherein said void-initiating particles are selected from the group consisting of solid glass spheres, hollow glass spheres, metal beads, metal spheres, ceramic spheres, calcium carbonate, and mixtures thereof.

Claim 30 (Previously Presented): The thermoplastic multi-layer film of claim 24, wherein said film has a thickness from about 0.5 mil to about 5 mils.

Claim 31 (Previously Presented): The thermoplastic multi-layer film of claim 30, wherein said film has a thickness from about 1 mil to about 3 mils.

Claim 32 (Previously Presented): The thermoplastic multi-layer film of claim 24, wherein said film is biaxially oriented.

Claim 33 (Previously Presented): A thermoplastic multi-layer film, comprising:

a) a core layer which comprises about 60 wt.% to about 95 wt.% of a first polylactic acid having a first D-lactic acid level from about 1 mole % to about 8 mole %, and about 5 wt.% to about 40 wt.% of a toughening additive; and

b) a first skin layer which comprises a second polylactic acid having a second D-lactic acid level of at least about 8 mole %, said first skin layer is on a first side of said core layer.

Claim 34 (Previously Presented): The thermoplastic multi-layer film of claim 33, further comprising:

a second skin layer which comprises a third polylactic acid having a third D-lactic acid level of at least about 8 mole %, said second skin layer is on a second side of said core layer and opposite said first skin layer.

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Claim 35 (Previously Presented): The thermoplastic multi-layer film of claim 34, wherein said toughening additive is selected from the group consisting of poly(epsilon-caprolactone), metallocene plastomers, styrene-ethylene-butene-styrene (SEBS) block copolymers, polyethylene succinate, polybutylene succinate/adipate, polybutylene succinate/carbonate, polyurethane, and mixtures thereof;

Claim 36 (Previously Presented): A thermoplastic sleeve label adapted to be applied to a container comprising:

a) a core layer which comprises about 60 wt.% to about 95 wt.% of first polylactic acid having a first D-lactic acid level from about 1 mole % to about 8 mole %, and about 5 wt.% to about 40 wt.% of a toughening additive;

b) a first skin layer which comprises a second polylactic acid having a second D-lactic acid level of at least about 8 mole %, said first skin layer is on a first side of said core layer; and

c) a second skin layer comprising a third polylactic acid having a third D-lactic acid level of at least about 8 mole %, said second skin layer is on a second side of said core layer and opposite said first skin layer.

Claim 37 (Canceled)

Claim 38 (Previously Presented): A container having a thermoplastic sleeve label, comprising:

a) a container surface having an adhesive adjacent to said surface;

b) a label which comprises:

i) a core layer which comprises about 60 wt.% to about 95 wt.% of first polylactic acid having a first D-lactic acid level from about 1 mole % to about 8 mole %, and about 5 wt.% to about 40 wt.% of a toughening additive; and

ii) a first skin layer which comprises a second polylactic acid having a second D-lactic acid level of at least about 8 mole %, said first skin layer is on a first side of said core layer.

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Claim 39 (Previously Presented): The container of claim 38, wherein said label further comprises a second skin layer which comprises a third polylactic acid having a third D-lactic acid level of at least about 8 mole %, said second skin layer is on a second side of said core layer and opposite said first skin layer.